CLAIMS

1.   A system for determining and displaying icons representing text files, comprising:

a content extractor for determining the content of all or parts of a text file by examining words in the file;

a means for associating the content with an icon;

a selector for selecting an icon to represent the text file or portion of a file on the basis of the determined content of the text file; and

a display for displaying the selected icons to represent the text file.

2.   A system according to Claim 1, wherein the selector includes means for selecting the closest one of a group of available icons to represent the text file.

3.   A system according to Claim 1, wherein the content extractor includes means for determining several topic icons for the text file.

4.   A system according to Claim 3, wherein the topic icons form a composite icon associated with a different parts of the text file.

5.   A system according to Claim 3, wherein the several icons are sensed by different senses.

6.   A system according to Claim 1, wherein the icons facilitate use of a computer by people with various disabilities.

1 7. A system for representing contents of computer files via icons, the system

2 comprising:

3

4 a computer memory including a group of directories with lists of files;

5

6 a semantic content extractor for extracting information and content from the files; and

7

8 a module for creating icons representing the files on the basis of the information and

9 content extracted by the semantic content extractor.

1 8. A system according to Claim 7, wherein the semantic content extractor

2 includes:

3

4 a module that associates with a text file a language model, and word, key words and

5 key phrases counts;

6

7 a topic identifier that uses the language model and counts to identify a topic; and

8

9 a module that partitions a text in a file by topic count.

1 9. A system according to Claim 8, wherein the topic identifier uses likelihood

2 ratio to partition texts in parts by topics; likelihood in this ratio are defined by using

3 probabilities of words from language models of the text in a file and language models

4 for various topics that are stored in the database.

1 10. A method for creating a composite icon to allow greater access to computer

2 files, comprising the steps of:

3

4 using a file topic identification to perform segmentation and topic classification; and

5

6   using a file topic divider to divide the files into parts using segmentation and topic

7   classification from the file topic identification.

1   11.   An icon creator for creating an icon representing a file, comprising:

2

3   a semantic content extractor for identifying the importance and significance of topics

4   associated with the file; and

5

6   a matcher to create a match of data and images to create an icon using a database of

7   images and a database of icons; and

8

9   wherein each icon has an index attachment, which opens directly to the file.

1   12.   An icon creator according to Claim 11, wherein a blind person can use a sound

2   icon using the database of sound icons; this would enable the blind user to use their

3   sense of hearing to choose the file they wish to open.

1   13.   An icon creator according to Claim 11, further comprising means to allow a

2   person with a reading disability to use the icon system, including a group of files that

3   are formed into an icon attachment; the user then chooses an icon, using the pictures

4   or sounds and the user can then use a speech synthesizer can listen to a file.

1   14.   An icon creator according to Claim 11, wherein composite icons contain

2   multiple topics such as cars and travel, and dealerships, the larger part of the file

3   shows cars, the smaller part of the file shows travel; the middle sized part of the file

4   shows dealerships; and further comprising means to contain an index which lists

5   information on cars or building, means to show were the information on cars is placed

6   in the file; and wherein, using a fraction method, the files can be broken down.

1   15.   A method for creating icons, comprising:

2

3   generating a list of files;

4

5   reading the content of each file;

6

7   attaching topics to each file;

8

9   generating icons for the files;

10

11   if several topics, creating a composite icon containing many topics;

12

13   creating an index of topics;

14

15   printing a list of icons near file names; and

16

17   creating a list of icons to list files.

1   16.   A method of determining and displaying icons representing files containing

2   text, the method comprising the steps of:

3

4   determining the content of a file by examining words in the file;

5

6   searching a database of icons;

7

8   on the basis of the determined content of the file, selecting one of the icons in the

9   database to represent the file; and

10

11   displaying the selected icon to represent the file.

1   17.   A method according to Claim 16, wherein in the database, each icon is

2   associated with words, and wherein:

3

4   the determining step includes the sep of using a semantic content extractor to identify

5   the importance and significance of topics associated with the file; and

6

7   the selecting step includes the step of comparing said topics with the words in the

8   database to select one of the icons to represent the file.

1   18.   A program storage device readable by machine, tangibly embodying a program

2   of instructions executable by the machine to perform method steps for determining

3   and displaying icons representing files containing text, said method steps comprising:

4

5   determining the content of a file by examining words in the file;

6

7   searching a database of icons;

8

9   on the basis of the determined content of the file, selecting one of the icons in the

10   database to represent the file; and

11

12   displaying the selected icon to represent the file.

1   19.   A program storage device according to Claim 18, wherein in the database, each

2   icon is associated with words, and wherein:

3

4   the determining step includes the sep of using a semantic content extractor to identify

5   the importance and significance of topics associated with the file; and

6

7   the selecting step includes the step of comparing said topics with the words in the

8   database to select one of the icons to represent the file.

1   20. The system in claim 1, where the icons contain advertisements, which may be

2   hyperlinks.

1   21. The system in claim 20 where users pay less for the system if ads are included.

1   22. The system in claim 20 where advertiser pays manufacturer or seller of system.